

*Goldsmith (W. T.)*

*Compliments of the Author.*

THE PITH OF THE DRIED CORN-STALK AS A  
UTERINE TENT;

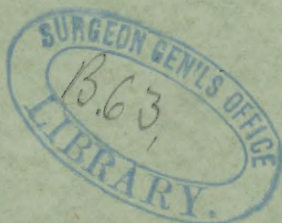
AND

GENERAL REMARKS UPON THE USE OF UTERINE TENTS IN  
GYNECOLOGICAL PRACTICE, WITH CASES.

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BY W. T. GOLDSMITH, M. D., ATLANTA.

*Presented by  
the Author*



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# THE PITH OF THE DRIED CORN-STALK AS A UTERINE TENT;

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Uterine tents are most valuable agents in the hands of the gynæcologist. They have a two-fold value, as diagnostic and therapeutic instruments; and so deserving are they in these respects that their usefulness has been fully recognized wherever the treatment of the diseases of women has attained anything approaching scientific importance. Uterine tents were not unknown to the ancients. Aetius, referring to the causes of sterility, assigns one of these to contraction of the os uteri, and points out the use of compressed sponge as a remedial means. Sir J. Y. Simpson, in his lectures, speaking of the supposed discovery of Dr. McIntosh in dilating the os and cervix, remarks: "Dr. McIntosh, a medical teacher of great reputation in this school some twenty-five years ago, thought he was the first to call attention to this particular (obstructive) form of dysmenorrhœa, and proposed to treat it in the same manner as surgeons do strictures of the urethra." \* \* \* "The plans of treatment then recommended by Dr. McIntosh was fore-

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\* A few typical cases, only, are given.

stalled ages before. For, in works included among the Hippocratic writings, the disease is most distinctly spoken of, and the appropriate treatment described. In the 13th section of the *Γυναικεῖων Πρωτον* the treatment of these cases is given where sterility is due to some unusual conditions of the os uteri; and among other things, the writer tells us that where the orifice is very much contracted, it must be opened up with bougies and leaden instruments. So that this plan of treatment is at least 2,500 years old. Some others, among the older Greek and Roman writers on female diseases, have also alluded to this form of dysmenorrhœa or sterility, and to its treatment by dilatation of the os uteri, though none so distinctly as the Father of medicine himself. But there are various surgical works of later date in which mention is made of this matter in the most explicit terms. Thus, in the *Marrow of Chirurgery*, published in the latter part of the seventeenth century by Mr. Cook, of Warwick, a work containing many curious notices and cases in obstetric, medical and surgical practice, this author treats in one of his chapters of closure of the "inner orifice" of the womb, or os uteri, and recommends it to be enlarged when necessary by gentian root, prepared sponge and afterwards by the introduction of hollow instruments of silver, ivory or horn, and these means, he adds, are better than incision."

Uterine tents have been made of many different substances. Ivory has been thus employed from which the boney matter was abstracted by hydrochloric acid. Dr. McIntosh and others used metallic bougies of graduated sizes for the successive dilatation of the cervical canal. Dr. Priestly employed expanding forceps the size of the ordinary uterine probe. Cotton, tow, wool, cloth, india-rubber, roots of various plants, have been advocated and used. The

most commonly employed substances are the compressed sponge and *laminaria digitata* or sea-tangle.

Dr. J. A. McFerran, of Philadelphia, Pa., endeavoring to avoid the dangerous consequences often attending the use of the sponge tent, employs the following, which may be inserted here, among the varieties of tents: He fixes a sponge tent upon the extremity of a metallic or hard-rubber tube, which he envelopes, by a close-fitting piece of thin rubber. Fluids reach the tent, from the vagina, through the tube. The sponge is dilated, while the mucus membrane is protected by the rubber.

Among the inventors of uterine tents, our State has already furnished two. My friend, Dr. V. H. Taliaferro, of this city, a few years since (1871), published his discovery of the cloth tent. Dr. Taliaferro's tent is well known. Some Western physician, whose name I do not now remember, claims to have improved Dr. Taliaferro's tent, by the use of bonnet wire, around a bent strand of which he rolls the cloth. By this improvement, he claims to secure greater rigidity, and increased facility of introduction, without impairing the usefulness of the tent. Another Georgian, Dr. G. E. Sussdorf, formerly of Macon, now of New York city, has, within the past year, published a description of a tent, which he manufactures, from the root of the tupelo tree. The expansive power of the compressed tupelo root, he asserts, is considerable. This root is, however, rather difficult of procurement, and, before it can be used as a dilator, must be subjected to compression, by instruments, not always conveniently at hand.

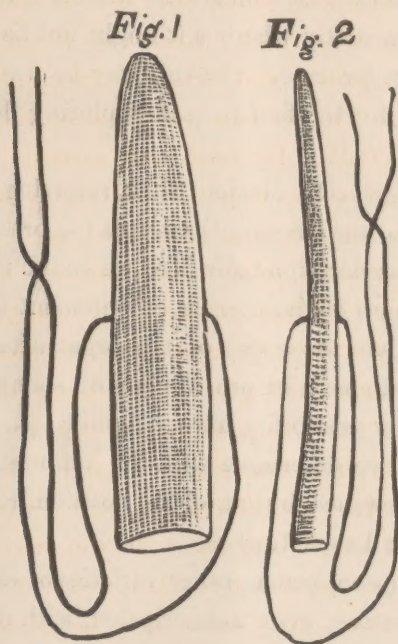
I have the pleasure of bringing before the profession a new candidate for their consideration, as a uterine tent. It is the pith of the dried cornstalk. It may, or may not, have advantages over other materials, manufactured into tents.



I will permit the profession to determine this matter. To my mind, there are many points of superiority. These points will be developed, as I proceed with the reading of this paper. I will, however, pause long enough to show the ease and rapidity with which they can be made. You take a joint of the dried stalk; strip it of its cuticle, and compress the pith, slowly and firmly, between the thumb and index finger. You see how compression, made in this way, diminishes its bulk. By continued pressure, you easily reduce it to four or five times less its original size. You can compress it to any intermediate size; or, it may be used without compression, to carry medicaments to the interior of the uterus. Because of its ready compression, to any desired bulk, you have the tent entirely under your control. Slight compression will give you moderate dilating power. Compress it as much as possible, and you can get a dilating power equal to the sea-tangle, or sponge. You may compress the pith first, and afterwards, with a sharp knife, trim to the desired length and size; or, you may first cut the pith, to the size you wish it to dilate, and then compress it for easy introduction. Any curve may be given the tent, by selecting a piece of pith that has been curved in its growth. The pith absorbs fluids readily, and, when compressed, expands, by such absorption, to its original size.

The wood-cut shows the degree of compression to which the pith may be subjected. Fig. 1, shows a piece of pith (with string passed through it, by means of a needle,) cut to the size, to which the cervical canal in a given case, may be desired to be dilated. Compressed by the thumbs and fingers, it is reduced to the size of fig. 2. The cut represents the actual size and preparation of a tent. To reduce fig. 1 to fig. 2, required *one minute and a half*, by the watch. After introduction into the cervical canal, fig. 2 will expand to the

size of fig. 1. More rapid expansion may be had by pricking the surface of the compressed tent, or by forming a canal through the tent, by first inserting a wire through the length of the pith, before compressing it.



As before stated, uterine tents have two important uses—for diagnostic and therapeutic purposes. Tents are employed for dilating the entrances to the cavity of the uterus, that the finger, as well as the eye, of the gynæcologist may determine the pathological disturbances of the interior of that organ. When symptoms point to the existence of intra-uterine polypi, dilatation by tents afford the utmost satisfaction in clearing up the diagnosis. In speaking of determining the presence of intra-uterine tumors, Sir J. Y. Simpson remarks: “Many years ago, I saw, with my friend, Dr. Alexander Wood, a patient who died of menorrhagia, and in



whom, after death, we found a polypus which was in process of being eliminated by the uterus; and it was here so manifest that the patient's life would have been saved if only we could have got into the interior of the uterus so as to recognize and remove the cause of all the mischief, that I began to think more earnestly whether it might not be possible to do so in any similar case." In this way he was led to use the sponge tent for the first time in exploring the cavity of the womb.

On this subject, Dr. Marion Sims, referring to a case, remarks: "This case strongly illustrates the present important method of exploration; for here we could not have determined the cause of the uterine enlargement but by passing the finger into the cavity of the organ after dilatation of the cervix. Indeed, before the use of sponge tents, we could not by any possibility have diagnosed such a case as this. But now we determine with the minutest accuracy, not only the presence, but the size, position, relations and attachments of all such tumors."

Sir J. Y. Simpson, among other varieties of cancer of the uterus, in his lectures, gives a description, with drawings, of general cancerous ulceration, (which he declares to be the most common form of the disease of the interior of the uterus,) assailing the mucous membrane, ending in fatal rupture of the fundus, or assuming "the form of a sessile irregular excrecence or fungus mass, projecting into and distending the uterine cavity, or even dilating and partially pressing through the healthy but distended os uteri." Illustrative of this variety of cancer, he gives the following case, and the means employed of ascertaining a correct diagnosis: He says: "The first time I ever saw and fairly made out the case of this last and most common form, was in a patient who had long suffered from an abundant serous and some-



times offensive discharge. She was here, from England, under the care of an old master of mine, and had often been treated by the application of caustics to the vagina and cervix, with the hope of arresting the copious and constant discharge. When consulted in regard to her case, I suggested the introduction of a sponge-tent into the os uteri, that we might then have an opportunity of making out more clearly the source of the discharge, or, at least, of making sure whether it might not be proceeding from the uterine cavity instead of the vaginal walls. After the sponge had been introduced the discharge was found to be checked, for the first time for many months, and on its withdrawal, a fungating mass was discovered by the finger in the interior of the uterus. You must not hold, therefore, that a patient has not got a cancer in the womb because the cervix is healthy; for the cervix may remain quite sound when the body of the organ has become extensively diseased."

The tent becomes of great use sometimes, in determining the existence of a vesico-uterine fistula when a vesico-vaginal fistula may be suspected. The same authority says: "In vesico-uterine fistulæ, in order to discover the perforation, you will generally require to plug the os uteri with a sponge tent. The use of the tent aids the diagnosis in two ways. First, by its pressure it prevents the escape of the urine per vaginam, thus proving the communication with the bladder to be placed higher than the os uteri. And, secondly, the due expansion of the os and cervix uteri, with tents, will enable you to reach the fistula with your finger or a sound, so as to empower you to trace the intercommunication between the urinary and uterine cavity."

The employment of tents affords the gynæcologist a therapeutic means of the greatest value in many diseases and conditions of the uterus. The power of the sponge tent to

destroy polypoid growths is now well-known. Dr. Sims, in his work on Uterine Surgery, claims—innocently, no doubt—the credit of originating the removal of tumors from the uterus by pressure from tents. Simpson has, however, precedence in this treatment. Dr. Sims had accidentally allowed a tent to remain in the uterus of a woman having a polypoid growth for eight days. His attention being called to the oversight, he removed it. Describing this case, he says: “When the tent was introduced a week before, the tumor was accurately measured, its volume, density and attachments all definitely settled, and easily so. . . . My surprise may be imagined when, on introducing the finger into the cavity of the uterus, after the removal of the tent, there was not a vestige of the tumor to be found.”

Simpson, antedating this, had in his lectures said: “You must have understood, from what I have already told you, that, in a very large proportion of cases of polypus uteri—in all those cases, in fact, in which the polypus has not come fairly within our reach down into the vaginal cavity—a certain diagnosis of the case can only be made out after dilatation of the cervix uteri. If access to the root of the mischief be needed for satisfactory diagnosis, it is all the more necessary for surgical treatment; and what I wish you to understand at present is, that, in many cases where you are uncertain whether you have to do with an intra-uterine fibroid or a cervical mucous polypus, you can, by the introduction of a sponge tent, not only open up the way for an unmistakable recognition of the true nature of the mischief, but, at the same time, in the case of the soft cervical polypus, you crush and kill the growth by means of the expanding tent, and so rid the patient at once of her disease.”

Dr. Sims affirms that “the tent may always be trusted to



destroy fungoid growths and small mucous or nabothian polypi when they cannot be otherwise removed."

He also remarks: "The power of the sponge tent to modify the uterine surfaces with which it lies in contact is truly wonderful. It dilates the neck of the womb; it softens it by pressure and by a sort of serous depletion; it reduces the size, not only of the neck, but of the body, of a moderately hypertrophied uterus; it destroys, not only fungoid granulations, but even large mucous polypi, and, in one instance, I saw a sponge tent destroy wholly a fibrous polypus as large as a pigeon's egg."

Now, while the idea of pressure for the removal of these conditions originated with Simpson, Sims has given force and authority to the practice. Pressure, as a means of effecting changes in the tissue of the uterus by other mechanical means than the tent has been employed.

To Dr. Sims is due the credit of using the tent as a stimulant to the diseased mucous membrane of the cervix and cavity when fungoid granulations are present. The tent can be used either medicated or without medication. Speaking of fungoid granulations, Dr. Sims remarks: "The curette is simply the adjuvant to the tent, and always to be preceded by it. But there are cases where their relationship is changed, the sponge becoming the adjuvant of the curette, and this is when the fungoid granulations are at the fundus uteri. Then the sponge is to dilate the cervix for the more easy application of the curette." "In cases of menorrhagia that resisted all treatment, Recamier passed his curette into the uterine cavity and raked it out as thoroughly as possible. This was before the days of sponge tents. But now we first dilate the cervix, pass the finger into the cavity, ascertain precisely the seat of the fungoid growths, pass

the curette by the side of the finger, and thus operate more understandingly."

In many cases of menorrhagia, tents employed as tampons, or for dilating the cervix, to more readily reach the seat of the trouble, by suitable remedial agents, become important factors in the treatment. The following case will be given :

CASE I.—Mrs. T., aged forty : married ; has had no children. She has suffered from menorrhagia, for twelve or fifteen years. At various times, she has, from excessive hemorrhages, been brought to the brink of the grave. I was called to see her, during one of these severe losses of blood. For twelve months, the hemorrhage had increased, month after month, with each occurrence of the catamenial flow. She had exhausted every means at her command, and had passed through the hands of several physicians, with only temporary relief. I found her too feeble to assume the erect posture—with weak pulse and blanched skin. She had been confined to her bed for several weeks. Upon examination, the uterus was found to be heavy, cervix large, with patulous os. The sound passed into the uterine cavity, easily. The organ was slightly retroverted, and prolapsed. The blood flowed freely, filling the speculum rapidly. Removing the probe, the bleeding was arrested, by a temporary packing of cotton. After a few minutes, removing the packing, the os was brought in view. While waiting for the arrest of the flow, a corn-stalk tent, of large size, was trimmed, without being compressed, and, upon removing the cotton, carried into the uterine cavity. Pledgets of cotton, moistened with glycerine, were packed around the os, to prevent the escape of the tent. Twenty-four hours afterwards, the cotton packing and tent were removed. There had been no pain, of consequence, and no hemorrhage.



A second corn-stalk tent, compressed, in order to dilate the canal, was introduced, and retained by cotton, as before. The day following, the cotton and tent were taken away, and the canal found to be dilated the size of the little finger. A pledget of cotton, wrapped on a whalebone probe, soaked in concentrated nitric acid, was carried into, and swept around the cavity of, the uterus. The patient was left with the usual cotton packing. No hemorrhage, of consequence, occurred after this. The acid was applied, at intervals of a few days, on several subsequent occasions. She was placed upon tonics, and liberal supplies of food allowed. In a few weeks she had recovered sufficiently to attend to her domestic duties, and is now a hale, hearty woman, four years after the treatment.

For the cure of hypertrophy Dr. Sims reports Dr. Emmet as saying "that he has succeeded in doing more for general hypertrophy of the uterus by this means in a week than could be accomplished by any and all means in two or three months."

In obstructive dysmenorrhœa from fibroids, relief is had by dilating the cervical canal by tents. Dysmenorrhœa is often caused by a contraction of the cervical canal, at either the os internum or externum. The contraction occurs most commonly at the os externum. For the cure of dysmenorrhœa arising from either of these "mechanical anomalies" some method of dilatation must be employed, an operation undertaken or some kind of (vaginal or stem) pessary used. Authorities are arrayed on either side of dilatation by incisions or of mechanical expansion of the strictured portions. When the contraction is found at the os externum, the bilateral operation will give satisfactory results in a large majority of cases. Much, however, can be accomplished in giving temporary relief, in these cases,

by the use of tents. The relief is seldom permanent. From this fact many gynæcologists condemn the use of tents, and either dilate by metallic bougies, forcibly and rapidly, or resort to the bilateral operation. Forceful and rapid dilatation by metallic bougies, or expanding instruments, is too dangerous to secure general approbation. The bilateral operation is not always successful. Dr. Robert Barnes, an advocate of the operation, remarks: "The wished for result is not always immediate. In a certain number of cases, indeed, the next ensuing menstruation is perfectly easy and future immunity is attained. But not unfrequently, the first period or two after the operation are even more painful than before." \* \* \* "Another objection specially urged by the advocates of dilatation by tents is, that the opening made by incisions frequently contracts again, whereupon the object of the operation is frustrated. This contraction does sometimes take place. When it does, it is desirable to repeat the operation and to obviate the tendency to contraction by wearing a Wright's intra-uterine pessary for a day or two during the healing of the wound." Thus a stem-pessary becomes necessary. In these cases the use of the non-compressed corn-stalk tent, as a temporary intra-uterine pessary, occasionally inserted, will serve as good a purpose. It is light and non-irritating.

When the contraction occurs at the os internum, no careful surgeon would use the knife, or metrotome double or single. Forceful and rapid dilatation being too hazardous, dilatation must be accomplished by tents; and while no lasting results may be attained, yet the patient receives great temporary relief, and the uterus is prepared for intra-uterine support. These pessaries are the more demanded because the so-called contraction of the internal os is



the result, more frequently than otherwise, of versions or flexions of the organ. When retroversions or flexions exist, vaginal, instead of intra-uterine pessaries, will, in many cases, correct the trouble and permanently relieve the patient. Vaginal pessaries will not correct all cases of retroversions or flexions; and vaginal support will not often avail in anteversions or flexions. These conditions often demand intra-uterine support for their rectification and cure. Tents, in these cases, are to be used not so much to expand any portion of the canal as to bring the uterine axis in its normal direction, and accustom the membrane and the organ to the presence of a foreign substance, that they may ultimately tolerate the permanent stem pessary. In these cases the sponge or the sea-tangle tents could not be employed. Moreover, in versions and flexions, besides the dysmenorrhœa, the mucous membrane will be usually found in a state of chronic inflammation, and the medicated tent of non compressed corn-stalk will be found a remedial measure of the greatest advantage. Illustrative of the use of tents in dysmenorrhœa, the following cases are given :

CASE II.—Mrs. S., widow, aged thirty-seven years, one child fifteen years old, has suffered for many years with irregular and diminished flow, with great pain at menstrual periods. The pain has been, of late years, so great as to force her to bed, and has demanded powerful narcotics for relief at each period. She has been treated by several physicians for relief of pain, but no local treatment was ever attempted. She had almost despaired of relief. I was asked to take her case in hand. Upon examination, by touch, the womb was found a little tender to pressure and slightly flexed backward. The speculum revealed a very small os, with a conical cervix. The probe passed with some difficulty and gave considerable pain. A moderately compressed corn-

stalk tent was prepared. It was made small and about one and one-half inches in length, so as merely to pass through the internal os, and that the larger extremity of the tent might be carried within the grasp of the external os. Pledgets of cotton, moistened with glycerine, were packed around the os. This treatment was had six days after the last menstrual period. It was followed up, at intervals of from four to six days, to within a few days of the next menstrual period.

The tents were gradually increased in size, but not in length, and were permitted to remain eight to twelve or fifteen hours, as they could be well borne. She was instructed, upon the appearance of pain, to withdraw the cotton (by the attached strings) and the tent. The patient (or nurse) removed all the tents. Cotton pessaries (tampons), moistened with glycerine were to be worn daily during intervals of treatment. At the next menstrual period, the flow was almost natural in quantity, and, after the first few hours, free from pain. The treatment was followed up in the same way one month longer. The relief was so great that the patient asserted she had never been so free of pain during her menstrual life. It was so great she declined further treatment, though urged to submit to bilateral incision of the cervix for a permanent cure. Three years have passed. She still feels the benefit of the treatment, and, while not well, asserts, because of the relief given, that she is cured.

CASE III.—Dysmenorrhœa, cervical endometritis, with retroversion. Mrs. A, aged twenty-four; married five years; childless; thinks she miscarried (?) three years ago. Has suffered with dysmenorrhœa for several years, which has greatly increased in the last few years. I was called to see her two weeks before an expected period. She had lost flesh; had indigestion, and was constipated; complained of aching in the back, and troubled at times with dysuria; had more or



less leucorrhœa during inter-menstrual periods. To the touch a velvety condition of the os was discovered, and the organ found retroverted. The probe passed with difficulty at the internal os, giving considerable pain, with slight oozing of blood. The os was small, and lips red from loss of epithelium, with a tenacious mucous discharge from the cervical canal. A corn-stalk tent, small, moderately compressed, curved, and one and a half inches in length, was introduced. Its introduction caused pain, but by gentle and steady pressure it was carried through the internal os. She was told to allow the tent to remain as long as it could be borne without great pain. I called on the lady eight hours after its introduction, and found her suffering considerable pain. She had determined to bear more than I was willing she should. She believed a speedy cure depended upon "opening the womb." I removed the tent, administered an anodyne, and recommended rest for a few days. During this time she was to use large quantities of hot water several times a day, and after washing, to throw up the vagina one syringe-full of solution of chlorate potassium, and retain it for some time. A prescription was also given for the indigestion and constipated bowels. A few days after the cessation of pain, another tent, with a little more compression, was used. It was removed in a few hours, and the treatment, as above, continued. At the next treatment the tent was compressed but slightly; was saturated with tincture of iodine and retained twelve or fifteen hours. Stopping only for the menstrual periods to pass, tents, at suitable intervals, of increased size and degrees of compression, sometimes medicated, were introduced. The probe passed without pain. Cotton pessaries were worn, so that, after the lapse of a few months, all tenderness being removed, a Fitch improved (Hodge-

Smith) pessary was adjusted, and the patient relieved of all trouble.

Tents of the proper length and size, either with medicated liquids or free of liquids, are of great service in the treatment of chronic cervical endometritis. Dr. Thomas, in giving his treatment of the disease, says: "The efforts of the practitioner should be directed to producing an alterative influence upon a mucous membrane, which is in a condition of chronic inflammation, and the avoidance of all influences, which may cause it to spread to adjacent tissues. These ends will be best accomplished by the following means: General regimen; emollient applications; alterative applications; obliteration or destruction of diseased glands." He does not include the use of the tent in the catalogue of alterative applications, but recommends them alone, for dilating the contracted external os. Simpson, Barnes and Sims, are all silent on the subject. I have been in the habit, for many years, of giving the necessary alterative action to the diseased mucous membrane by the use of the corn-stalk tent. It may be slightly compressed, or not at all. If only moderate stimulation is desired, it is introduced with a few drops of glycerine, rubbed on it. If destruction of the glands is wished, the tent can be saturated with any desired solution, and introduced, where it may be allowed to remain for a few minutes, several hours, or even for a few days. The only approach Dr. Thomas makes to this method of treatment is, that recommended by Dr. Sims, which consists of depositing a small roll of cotton, medicated, in the cervical canal.

In treating chronic endometritis these authors are silent upon the employment of tents other than as dilators. Dr. Sims alludes to dilating the internal os by sponge tents preparatory to intra-uterine injections. In this connection he remarks: "It must not be forgotten that the uterine injec-

tion is to be always and invariably preceded by the use of the sponge tent; that this is an essential part of the treatment, and by no means to be neglected." He asserts that after dilating the internal os by the sponge tent these injections are "simple and safe." Many gynecologists do not share this confidence in the harmlessness of intra-uterine injections. With medicated tents and other safer modes of treatment, just as effectual, if not more so, at hand, few will venture to run the risks of incurring the accidents frequently following intra-uterine injections.

For the treatment of this disease the non-compressed pith of the corn-stalk, employed as a tent, is an admirable means of conveying medicines to the cavity of the womb. The cloth tents of Dr. Taliaferro are also good tents for this purpose. They are inferior to the corn-stalk tent in several particulars. They are liable to bend and are sometimes quite difficult of introduction when saturated with a fluid. A spasmodic contraction of the cervical canal always takes place when a stimulating application comes in contact with the mucous membrane. Under these circumstances the canal partially closes, and when the cloth tent is attempted to be introduced, it frequently bends before it can overcome the resistance. The corn-stalk tent is of easy introduction. Its rigidity overcomes any slight resistance. It absorbs fluids readily and does not bend, if of proper size, before entering the cervical canal. It is sometimes desirable to secure a limited degree of pressure upon the mucous membrane of the uterine canal. The cloth tent cannot be, to any considerable extent, a dilator. Its dilatation occurs before its introduction if medicated. It may slightly expand in the uterine cavity if introduced dry, but being soft, cannot accomplish much in that way. For seven years I have been using the corn-stalk tent in the treatment of



chronic endometritis. I do not employ tents to the exclusion of other methods of intra-uterine treatment; nor do I always medicate the tent. The corn-stalk tent alone, without medication, frequently affords the necessary amount of alterative action in the diseased membranes. Local treatment is not all the treatment necessary. There must be constitutional treatment as well.

CASE IV.—Chronic Endometritis, with Retroversion. Mrs. C., aged twenty-eight; married; mother of three children, the youngest four years old. Since the birth of this child, she has been troubled with leucorrhœa, copious and almost purulent at times. Pain in the back. Menstruates irregularly in time and quantity, and sometimes attended with pain. Tongue coated white. Pulse 90. Rests badly at night. Bowels constipated. Has lost flesh and appetite. Coughs, and thinks she is “consumptive.” Has bronchitis. Found uterus, by touch, retroverted; os large, indented and velvety. Great relaxation of parts, with copious, thick, mucopurulent discharge filling the vaginal *cul-de-sac*. The speculum revealed the cervix large, ragged and “ulcerated;” the redness extending up as far as visible, with thick, cream-colored, mucopurulent secretion pouring from it when pressed. Probe caused some pain; passed without much difficulty, following the retroverted cavity. The uterus was rotated into position by the probe, and a corn-stalk tent, slightly compressed, and saturated with tincture of iodine, carried into the uterus. The patient was requested to keep her bed and allow the tent to remain twelve or more hours, unless pain supervened, when it should be withdrawn. It was removed the next day. On my next visit, five days afterwards, I found the discharge had diminished. A tent was introduced as before. This treatment, varied to suit the conditions of the patient, was followed up at intervals of

four to six or more days. Between intervals of treatment she was to use copious warm water injections, followed by injections of solution of chlorate of potassium and tannin. Cotton pessaries, as large as could be borne, moistened with glycerine, were to be inserted each morning and worn during the day. Prescriptions were made to correct the indigestion and constipation. She was ordered phosphated cod liver oil and bromide of potassium for promoting sleep at night.

The treatment was continued for many months. Improvement was slow, but quite perceptible from the beginning. When the improvement had progressed sufficiently, treatment was had at longer intervals of time, and the cotton pessaries displaced by a well-fitted (Hodge-Smith) Fitch pessary. At this time, fifteen months after commencement of treatment, the patient is in excellent health and three months advanced in pregnancy. She still wears the pessary, which will be removed in a few weeks.

Other uterine troubles are amenable to treatment by tents. In amenorrhœa, among other methods of treatment, Dr. Thomas recommends the introduction of a tent a few days before the expected period. He also recommends its use in neuralgic dysmenorrhœa.

The attention of the profession has been repeatedly called to the dangerous consequences often following the use of uterine tents. Metritis, peritonitis, septicæmic fever, tetanus, hysterical convulsions, etc., have all followed the use of the sponge tent. There are many serious objections to the sponge tent. The secretions are absorbed and retained, and are often decomposed in it while in contact with the mucous membrane. In expanding, the cells of the membrane are sunk in it, and on its withdrawal are torn and denuded, aiding the absorption of septic fluids.

The sea-tangle tent has been used as a substitute. Simi-

lar accidents have, however, followed its employment. Of these tents, Dr. Sims writes: "I have used the *laminaria digitata*, and think well of them, but they can never wholly replace the sponge tent." It is possible that no tent can entirely replace the sponge tent, but the effort, in view of the dangers of that tent, must be constantly made. Dr. Thomas remarks: "Had all the fatal cases which have resulted from accidents due to tents been faithfully recorded, the list would now be a long one, and it would be greatly lengthened by a record of all the instances in which tedious, exhausting and dangerous disease has thus been excited." He gives the following rules for the use of tents. These rules are well known to the profession, but I give them because, in some respects, they do not apply to the corn-stalk tent, however much they may to the sponge tent:

"*Rule 1.* In the introduction of a tent, no force whatever should be employed. Should that first essayed not pass the os internum easily, it should be withdrawn and either bent so as to follow more accurately the course of the cervical canal, as ascertained by the probe, or exchanged for a smaller tent."

The observations in this rule give the experience of gynecologists in the use of the sponge tent. The compressed sponge is exceedingly hard and wanting in pliability. No force should be used in its introduction. The corn-stalk tent is less irritating to the mucous membrane, and, made smooth, can be passed with a moderate degree of force. I have often employed a considerable amount of force, in certain cases, in its introduction. The probe should always precede the introduction of the tent, in order to show the degree of curvature in the cervical canal, and to determine the size and length of the tent suited to the particular case. If curvature beyond that naturally existing occurs, it is easy,



in a few minutes, to shape the curvature of the tent to that of the organ, by selecting a piece of the pith in which the curve has been given it by nature in its growth. From this fact the fibres of the stalk are not cut across, but preserved in their natural direction. A tent made in this way may be introduced without difficulty. I have prepared these tents often after the introduction of the speculum and the probe, in a few minutes, after determining the size, curve, and length demanded by the particular case.

*Rule 2.*—"A tent should never, under any circumstances, be introduced at the physician's office, and the patient allowed to go home with it in utero. Such practice is hazardous in the extreme. Even when introduced at the patient's home, she should, at once, be confined to the recumbent posture, and kept perfectly quiet."

This rule applies to any tent used for the purpose of dilatation; and, while caution, in the use of tents, is always to be enjoined, it is nevertheless true, that the corn-stalk tent used without compression, can be worn without danger.

After its introduction, I request the patient to keep the recumbent position for a few hours. But, often, they attend to their usual employments. They are directed, if the tent gives pain, to withdraw it, by the string attached. I will say here, that I rarely ever withdraw a medicated or non-compressed tent myself, but ask the patient to do so, after being properly instructed as to the manner of bringing it away. I tell her to pull gently, with a see-saw motion, and in the proper direction, and to use no undue amount of force. If it refuses to come away easily, I remove it.

*Rule 3.*—"The practitioner should always investigate as to the previous existence of chronic pelvic peritonitis, one of the most common of the diseases of women. Should it have existed, tents should be carefully avoided. In some of the

instances, in which I have seen dangerous results follow their use, this condition had previously existed, and been excited into action again by them."

*Rule 4.*—"A tent should never be allowed to remain in the uterus more than twenty-four hours, and, if it be compatible with the accomplishment of the desired result, it should be removed in twelve hours."

This rule applies again to the use of the sponge tent. I have often intentionally allowed the corn-stalk non-compressed tent to remain in the uterus for several days. I have never had any bad results from the practice, but it is well to state, I always instruct the patient to withdraw it at once upon the appearance of pain. It can be borne for a length of time, provided pain does not supervene.

*Rule 5.*—"After the removal of a tent, the vagina should be washed out with an antiseptic fluid, and if any pain, chilling or discomfort, follow the removal, opium should be freely administered and perfect rest enjoined."

The use of antiseptic fluids after the removal of the corn-stalk tent is unnecessary, as no decomposition occurs because of its presence in the cervical canal. It has never been necessary to use opium for the purposes above suggested after the withdrawal of these tents.

*Rule 6.*—"After the removal of the tent the patient should be kept in bed at least twenty-four hours, and never allowed to travel before the expiration of four or five days."

The first part of this rule I have never observed in a single instance, when using the tent medicated. When employing the corn stalk tent as a dilator, it is better to observe the rule, but it is not necessary to do so when using it non-compressed or as a medicated application.

In speaking of sponge tents Dr. Sims declares he never

uses them if he can possibly avoid doing so.\* Indeed, so dangerous does he regard them, and so necessary, if possible, is it to find a substitute for them that he asserts that "he who will give us an efficient, safe and cheap substitute for sponge tents will confer a great boon upon surgery."

I offer the corn-stalk tent as a "safe and cheap substitute." It remains to be seen if it shall, in the hands of the the profession, prove "efficient." As before stated, I have used this tent for the last seven years, testing it before giving it to the profession. During this time I have not had a single accident from its use and have introduced it many hundreds of times.

Its advantages I will enumerate as follows :

It dilates effectually, but not too rapidly.

It is smooth, soft, and can be removed without force.

It produces no lacerations, abrasions, or irritation of the mucous membrane.

It can be medicated with any substance, as easily as the sponge or cloth tent.

It is of vegetable origin, and, hence, does not become putrid and poisonous to the patient.

It may be retained, non-compressed, for days, without injurious results, if no pain occurs.

A number of small tents, filling up the cervical canal, may be used for more rapid expansion.

It can be prepared in a few minutes, of any desired curve, size and length.

Any degree of compression may be given it, or it may be used without compression.

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\*The dangerous character of the sponge, when used as a tent, is easily explained. When taken from the sea it is "a black, gelatinous mass, emitting a very disagreeable odor, which increases as the mass putrefies. These black masses forming the sponges are taken ashore where they are either buried in the sand or exposed to the sun for several days ; after decomposition has ceased, the sponges are beaten with clubs, this beating removing many of the dead animals in the form of black dust."



It may be perforated, like the sea-tangle, and its power of absorption increased, by pricking its surface.

The introduction of the corn-stalk tent is, usually, no difficult matter. I introduce it before or after inserting the speculum, but prefer the latter method, as a rule. After bringing the os into view, by means of the speculum (which can easily be done, except in cases of anteversion, when the tenaculum will aid in bringing it in view,) the tent is carried to the os uteri, affixed to a stick eight or ten inches in length, by means of a needle fixed in the end of the stick. Holding the small end of the tent in the os, the uterine probe, or a small rod, is placed firmly upon the tent, near the point of insertion of the needle. The stick, in which the needle is fixed, is withdrawn, and the tent pushed, gently but firmly, up the cervical canal by the probe. Between the end of the tent and the probe, the latter being held firmly against the tent, a kind of universal joint is formed, permitting the tent to take the surest and easiest direction into the uterus. Frequently, the uterus ascends before the tent (especially if a little too large), as it is being pressed into the cervical canal; and, in straightening the canal, where there exist curvatures from flexions or versions, the probe end of the tent falls back upon the posterior wall of the vagina. The speculum is withdrawn an inch or so, while the probe, with the tent almost at a right angle with it, lifts the tent into the cervical canal, out of sight, where it is left, a string having been attached to it, by which it may be withdrawn. I endeavor, always, to carry the large end (probe end) of the tent a short distance within the os uteri. When this is done, it is less liable to escape from the canal into the vagina. The size of the tent should always admit of easy introduction. Slight force will, however, do no harm. It is well to place a packing of cotton, with glyce-

rine, around and upon the os uteri, before removing the speculum.

As stated, I allow the patient to withdraw the tent, when not used as a dilator. The physician, in removing the tent, should do so with the fingers, and never through the speculum, as air may be admitted to the uterine cavity, and bad results follow.







